over different combinations of patient weight and surface area. RESULTS: Savings of €3,404 per course per patient were shown; potentially saving the Italian health care system €7.67 million per year. This assumes that of the 2,252 third-line patients, 57% receive panitumumab and 43% receive Active Supportive Care in Year 1 based on the prevalence of the wild-type K-RAS mutation, compared with 100% receiving cetuximab. CONCLUSIONS: Results indicate that substantial savings are associated with panitumumab therapy over cetuximab therapy at national and per-patient levels.

A COST-EFFECTIVENESS ANALYSIS OF IXABEPILONE FOR BREAST CANCER AT A TERTIARY CANCER CENTER Lal LS, Maewal I, Miller LA, Smith WD, Arbuckle R University of Texas MD Anderson Cancer Center, Houston, TX, USA

OBJECTIVES: This study evaluates the cost-effectiveness and the budget impact of ixabepilone, a new microtubule stabilizer for treatment of breast cancer, as part of the Formulary Management System at a major tertiary cancer center in the United States. METHODS: A decision-analytical model was developed to estimate the incremental cost-effectiveness of ixabepilone for breast cancer, in patients who failed treatment with anthracycline and taxane. The model compared two strategies: combination therapy of ixabepilone with capcitabine compared to capcitabine alone. The outcome of interest was progression free life year (PFLY), based on published literature and clinical use estimates. Direct institutional medical costs for a one-year time period were utilized. One-way and two-way sensitivity analyses on the probabilities of disease progression were conducted. In addition, a budget impact analysis was also conducted for adding ixabepilone in the Formulary. RESULTS: Based on outcome estimates from literature and the application of the institutional costs, the cost per PFLY saved for ixabepilone for treatment of advanced breast cancer was $318,404. One-way sensitivity analysis on the efficacy probability (0–1.0) of the combination therapy indicated that ixabepilone’s cost-effectiveness ratios ranged from $205,000 to $1,200,000 per PFLY saved. Two-way sensitivity analysis with a willingness-to-pay threshold of $250,000 indicated that the majority of the time monotherapy is the more cost-effective option. Only if the probability of response to the combination is >30% and the probability of response to the monotherapy is <33%, does the combination therapy become more cost-effective. The budget impact model showed that the institution will utilize about 7.67 million per quarter.

ESTIMATING THE COST SAVINGS FROM THE INTRODUCTION OF KRAS TESTING IN THE MANAGEMENT OF METASTATIC COLORECTAL CANCER (MCRC) PATIENTS RECEIVING PANITUMUMAB IN GREECE Papagianopoulou V, Christodouloupolou A, Bracco A, Yfantopoulos L

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OBJECTIVES: Panitumumab is the first fully human anti-EGFR monoclonal antibody to be approved as monotherapy for patients with wild type (wt) KRAS mCRC after failure of fluoropyrimidine-, oxaliplatin-, and irinotecan-containing chemotherapy regimens. This novel treatment approach is the beginning of a new era of personalised treatment whereby KRAS status is evaluated and only patients who are likely to respond (wt KRAS) receive treatment. The objective of this study was to evaluate the overall budget impact (BI) of the use of panitumumab versus testing KRAS and treating patients with wt KRAS in Greece. METHODS: To consider overall costs associated with panitumumab treatment versus testing KRAS status and treating only wt KRAS patients with panitumumab, a decision analytic model was developed to evaluate BI. Primary drug costs, concomitant medications, infusion costs, radiation therapy, clinic visits, and hospitalisations were included in treatment costs. An expert panel was employed to map mCRC patient flow as a local cancer registry was not available. In this analysis, cost calculations for the public and private sectors were conducted separately. RESULTS: Out of 470 potentially eligible patients for panitumumab monotherapy, the decision analytic model targets 268 (57%) patients with wt KRAS, according to indication. Potential total cost of receiving panitumumab without taking KRAS status into consideration was €83.4 million in the public sector, while total cost including KRAS testing to all patients but
PCN18
AN EVALUATION OF THE COST SAVINGS GENERATED WITH THE USE OF AN INTRA-OPERATIVE ASSAY FOR THE DETECTION OF METASTASES IN THE SENTINEL LYMPH NODES OF PATIENTS WITH BREAST CANCER
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OBJECTIVES: A molecular assay (GeneSearch™ Breast Lymph Node (BLN) Assay, Veridex, LLC), CE marked and approved by the FDA, has been in clinical use at our institution for over 18 months to intra-operatively detect metastases ≤ 0.2 mm in the sentinel lymph nodes (SLNs) of breast cancer patients. After a small validation study (N = 78, sensitivity = 92.3%, specificity = 96.9%) the assay was adopted as the only intra-operative SLN test used at the Institut Jules Bordet. This is the first evaluation of the cost savings generated by the use of this BLN assay.
METHODS: An economic evaluation was conducted in the first 300 patients in whom this BLN assay was used intra-operatively. The BLN assay results are used to make intra-operative decisions for axillary lymph node dissections (ALND) during the same surgery. We assessed the pathology, surgery & anesthesia, pharmacy, post-hospitalization, general, and total costs associated with patients having either: Surgery A = a lumpectomy + SLN + secondary ALND versus having: Surgery B = a lumpectomy + BLN + ALND. RESULTS: The total costs per patient for Surgery A was €3120, while for Surgery B it was €2210. Therefore, a difference of €910, were saved per patient when using the BLN assay, which represents a 29% cost savings. In 58 patients avoided having a second surgery, the total cost savings accrued by the institution for the Belgian social security system is €360,000. Since 58 patients avoided having a second surgery, the total cost savings of €360,000 was €52,780. CONCLUSIONS: The BLN assay was proved to be beneficial not only for our patients by reducing the need of second surgeries, it has also been demonstrated to be cost saving for the Belgian social security system. Its use at the Institut Jules Bordet in the first cohort of 300 patients has resulted in a cost savings of €52,780.

PCN19
COST EFFECTIVENESS OF CETUXIMAB IN FIRST LINE TREATMENT OF METASTATIC COLORECTAL CANCER: A MODELLING APPROACH FOR THE UK
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OBJECTIVES: To estimate the cost effectiveness of the addition of cetuximab to chemotherapy in 1st-line metastatic colorectal cancer (mCRC) from the UK NHS perspective. METHODS: Cetuximab is licensed for the treatment of mCRC in combination with chemotherapy (FOLFIRI and FOLFOX) in patients with wildtype KRAS and EGFR expressing tumours. A Markov model was developed to simulate disease progression, survival and potential for curative surgery. Progression-free survival data were extrapolated in the basecase analysis, utilising different parametric models. The potential for curative-intent liver surgery is estimated from Folprecht et al. [1] which demonstrated correlation between response rates to chemotherapy and resection rates. Base case resection rates (active/comparator) of 22%/12% (FOLFIRI) and 15%/7% (FOLFOX) were assumed using this correlation. The long-term benefits of surgery were estimated from Adam et al [2]. Treatment in specialised centres may lead to vial sharing and higher resection rates (55%/35% and 42%/26% respectively), these assumptions are tested in sensitivity analysis. The 1st line utility value (0.77) in the model was derived from EQ5D data collected in the FOLFIRI trial. RESULTS: In the basecase the addition of cetuximab to FOLFIRI/FOLFOX resulted in: incremental life years gained of 0.338 and 0.413; additional QALYs of 0.281 and 0.320; incremental cost effectiveness ratios (ICERs) of €69,287 and €63,245 per QALY and ICERs in specialised centres of €34,646 and €40,529. The ICER is mainly driven by the number of patients becoming resectable the acquisition cost of cetuximab, and parameterisation of the progression-free survival curves. CONCLUSIONS: The analysis demonstrates the role of cetuximab in enabling curative surgery which drives the cost-effectiveness. When assessing a highly selected group of patients within a subset with wild-type KRAS, the ICERs are close to UK willingness to pay acceptance thresholds. [1] Folprecht G, Grothey A, Alberts S et al, Neoadjuvant treatment of unresectable colorectal liver metastases: correlation between tumour response and resection rates. Ann Oncol 2005;16:1311–9; [2] Adam R et al, Rescue Surgery for Unresectable Colorectal Liver Metastases Downstaged by Chemotherapy. A Model to Predict Long-term Survival. Ann Surgery 2004;240.

PCN20
COST-EFFECTIVENESS ANALYSIS OF ADJUVANT TRASTUZUMAB FOR TREATMENT OF HER2-POSITIVE EARLY BREAST CANCER IN THE SAUDI ARABIAN SETTING
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OBJECTIVES: To evaluate the cost-effectiveness of standard chemotherapy plus adjuvant trastuzumab treatment for one year compared to standard chemotherapy in patients with early breast cancer in Saudi Arabia. METHODS: A Markov model was adapted to estimate the costs and clinical outcomes (quality-adjusted life-years (QALYs) and life expectancy) associated with the progression of early breast cancer over patients’ lifetimes. Patients transitioned through five health states according to probabilities reflecting the rates of disease progression observed in the HERA (HERceptin Adjuvant) trial. Total health care resource costs and utilization were estimated for each health state using values derived from a Saudi Arabian-specific survey. The analysis was done from the perspectives of the health care provider and society. The mean starting treatment age was assumed to be 30 years old, reflecting local demographics. Costs and outcomes were discounted at 3.5% per annum. Sensitivity analyses were performed. RESULTS: One-year adjuvant treatment with trastuzumab was estimated to increase life expectancy by 2.4 (4.9 undiscounted) years and quality-adjusted life years by 2.2 (4.3 undiscounted) QALYs, compared to standard chemotherapy. Over a patient’s lifetime, total direct medical costs, including indirect costs (attributed to travel and time off work for patients and care-givers), were projected to increase by approximately SR48,452 (US$12,903) compared to chemotherapy alone. Treatment with trastuzumab was estimated to partially offset mean event and state costs compared to chemotherapy.